

Our Case No. D-5154

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Stephen G. Baker et al. Serial No.: 09/847,182

Filed: May 1, 2001

For: CASTING SAND CORE AND EXPANSION CONTROL METHODS THEREFOR) Group Art Unit 1714

) Examiner: K. Wyrozebski Lee

CERTIFICATE OF TRANSMISSION

I hereby certify that this document is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703)

872-9310, on February 20, 2003.

Dennis K. Sullivan Attorney for Applicant

RESPONSE TO OFFICE ACTION MAILED NOVEMBER 8, 2002

The Commissioner for Patents Washington, DC 20231

Dear Sir:

In response to the Office Action mailed November 8, 2002, please substitute the following amend paragraphs of the specification and claims for those currently pending: IN THE SPECIFICATION:

[0005] U.S. Patent No. 5,911,269 discloses a method of making silica sand cores utilizing lithium-containing materials that provide a source of lithia (Li₂O) to improve the quality of castings by reducing sand core thermal expansion and the veins resulting therefrom in metal castings. The disclosed method of making sand cores comprises the steps of preparing an aggregate of sand core and a resin binder, and mixing into the aggregate a lithium-containing additive selected from a group consisting of .a.-spodumene, amblygonite, montebrasite, petalite, lepidolite, zinnwaldite, eucryptite and lithium carbonate, in the amount to provide from about 0.001% to about 2% of lithia. The use of such a method and lithia-containing additives is described as reducing the casting defects associated with thermal expansion of silica, including the formation of veins in the cavity and improving the surface finish of the castings.

